



March 24, 2010

Ms. Jocelyn Boyd
Interim Chief Clerk and Administrator
South Carolina Public Service Commission
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.
Power Plant Performance Report
Docket No. 2006-224-E

Dear Ms. Boyd:

Enclosed is the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of February 2010. From this point forward, these reports will be based on the year ending in February, in order to match the test period used in the annual fuel proceedings.

Sincerely,

Len S. Anthony (by dhs)
Len S. Anthony
General Counsel
Progress Energy Carolinas, Inc.

LSA/dhs
Attachment
45612

c: John Flitter (ORS)

February 2010

The following units had no off-line outages during the month of February:

Harris Unit 1
Robinson Unit 2
Mayo Unit 1
Roxboro Unit 2
Roxboro Unit 3
Roxboro Unit 4

Brunswick Unit 1

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 0:02 on February 27, and remained offline for the remainder of the month. The unit was offline for 47 hours and 58 minutes for the month of February.
- B. Cause: Scheduled Refueling Outage
- C. Explanation: The unit was taken out of service for a scheduled refueling outage. In addition to refueling, required maintenance and inspections are being carried out during this outage.
- D. Corrective Action: Planned outage activities were in progress at the end of February.

Brunswick Unit 2

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 16:04 on February 3, and was returned to service at 8:27 on February 8, a duration of 112 hours and 23 minutes.
- B. Cause: Reactor Coolant Leakage & Feedwater Heater Performance
- C. Explanation: Plant operators observed that the rate of leakage of reactor coolant was beginning to increase, and that the “A” train feedwater heater (FWH) was exhibiting abnormal performance. Although the level of reactor coolant leakage was well below technical specifications requiring a unit shutdown, management in consultation with the system dispatcher, concluded that a planned outage to address the leakage and FWH performance was a prudent course of action to ensure the unit’s safe, reliable operation.
- D. Corrective Action: Planned outage activities, including repairs to address the reactor coolant leakage and feedwater heater performance, were conducted. Upon completion of maintenance activities, the unit was returned to service.

	Month of February 2010		Twelve Month Summary		See Notes*
MDC	975 MW		944 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	570,760 MWH		7,943,890 MWH		2
Capacity Factor	87.11 %		96.05 %		
Equivalent Availability	92.01 %		95.37 %		
Output Factor	93.81 %		99.62 %		
Heat Rate	10,568 BTU/KWH		10,454 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	46,768	7.14	46,768	0.57	3
Partial Scheduled	5,558	0.85	51,295	0.62	4
Full Forced	0	0.00	249,696	3.02	5
Partial Forced	32,114	4.90	79,306	0.96	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	655,200		8,270,900		8

* See 'Notes for Nuclear Units' filed with the January 2010 report.

** Gross of Power Agency

	Month of February 2010		Twelve Month Summary		See Notes*
MDC	953 MW		926 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	506,056 MWH		6,298,536 MWH		2
Capacity Factor	79.02 %		77.69 %		
Equivalent Availability	80.64 %		76.71 %		
Output Factor	94.89 %		97.72 %		
Heat Rate	10,582 BTU/KWH		10,649 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	107,101	16.72	1,422,993	17.55	3
Partial Scheduled	5,856	0.91	45,624	0.56	4
Full Forced	0	0.00	232,840	2.87	5
Partial Forced	21,403	3.34	198,289	2.45	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	640,416		8,107,380		8

* See 'Notes for Nuclear Units' filed with the January 2010 report.

** Gross of Power Agency

	Month of February 2010		Twelve Month Summary		See Notes*
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MDC	936 MW		906 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	632,140 MWH		7,406,856 MWH		2
Capacity Factor	100.50 %		93.33 %		
Equivalent Availability	100.00 %		91.55 %		
Output Factor	100.50 %		101.03 %		
Heat Rate	10,519 BTU/KWH		10,698 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	0	0.00	495,270	6.24	3
Partial Scheduled	0	0.00	58,641	0.74	4
Full Forced	0	0.00	105,870	1.33	5
Partial Forced	0	0.00	6,844	0.09	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	628,992		7,936,560		8

* See 'Notes for Nuclear Units' filed with the January 2010 report.

** Gross of Power Agency

	Month of February 2010		Twelve Month Summary		See Notes*
MDC	758 MW		718 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	513,258 MWH		6,472,367 MWH		2
Capacity Factor	100.76 %		102.90 %		
Equivalent Availability	100.00 %		98.64 %		
Output Factor	100.76 %		104.00 %		
Heat Rate	10,438 BTU/KWH		10,662 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	33,335	0.53	3
Partial Scheduled	0	0.00	8,880	0.14	4
Full Forced	0	0.00	32,044	0.51	5
Partial Forced	0	0.00	10,254	0.16	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	509,376		6,289,680		8

* See 'Notes for Nuclear Units' filed with the January 2010 report.

	Month of February 2010		Twelve Month Summary		See Notes*
MDC	726 MW		739 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	456,238 MWH		4,180,906 MWH		2
Capacity Factor	93.52 %		64.55 %		
Equivalent Availability	99.97 %		88.22 %		
Output Factor	93.52 %		74.91 %		
Heat Rate	10,368 BTU/KWH		10,715 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	662,075	10.22	3
Partial Scheduled	150	0.03	45,911	0.71	4
Full Forced	0	0.00	19,329	0.30	5
Partial Forced	0	0.00	38,287	0.59	6
Economic Dispatch	31,484	6.45	1,530,756	23.64	7
Possible MWH	487,872		6,476,560		8

* See 'Notes for Fossil Units' filed with the January 2010 report.

** Gross of Power Agency

	Month of February 2010		Twelve Month Summary		See Notes*
MDC	671 MW		664 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	437,376 MWH		4,333,723 MWH		2
Capacity Factor	97.00 %		74.57 %		
Equivalent Availability	99.36 %		86.75 %		
Output Factor	97.00 %		84.24 %		
Heat Rate	9,023 BTU/KWH		8,914 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	0	0.00	324,502	5.58	3
Partial Scheduled	0	0.00	41,543	0.71	4
Full Forced	0	0.00	315,800	5.43	5
Partial Forced	2,905	0.64	87,149	1.50	6
Economic Dispatch	10,631	2.36	709,148	12.20	7
Possible MWH	450,912		5,812,260		8

* See 'Notes for Fossil Units' filed with the January 2010 report.

	Month of February 2010		Twelve Month Summary		See Notes*
MDC	698 MW		696 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	387,072 MWH		3,872,137 MWH		2
Capacity Factor	82.52 %		63.56 %		
Equivalent Availability	99.68 %		93.05 %		
Output Factor	82.52 %		67.57 %		
Heat Rate	11,126 BTU/KWH		10,852 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	362,106	5.94	3
Partial Scheduled	0	0.00	4,379	0.07	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	1,523	0.32	56,875	0.93	6
Economic Dispatch	80,461	17.15	1,796,951	29.49	7
Possible MWH	469,056		6,092,580		8

* See 'Notes for Fossil Units' filed with the January 2010 report.

	Month of February 2010		Twelve Month Summary		See Notes*
MDC	711 MW		700 MW		1
Period Hours	672 HOURS		8,760 HOURS		
Net Generation	419,113 MWH		4,474,973 MWH		2
Capacity Factor	87.72 %		72.97 %		
Equivalent Availability	99.64 %		94.08 %		
Output Factor	87.72 %		77.19 %		
Heat Rate	11,854 BTU/KWH		11,798 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	293,219	4.78	3
Partial Scheduled	0	0.00	24,714	0.40	4
Full Forced	0	0.00	5,596	0.09	5
Partial Forced	1,709	0.36	38,418	0.63	6
Economic Dispatch	56,970	11.92	1,295,968	21.13	7
Possible MWH	477,792		6,133,460		8

* See 'Notes for Fossil Units' filed with the January 2010 report.

** Gross of Power Agency

Plant	Unit	Current MW Rating	January 2009 - December 2009	February 2010	January 2010 - February 2010
Asheville	1	196	70.87	79.48	76.85
Asheville	2	187	59.45	74.56	73.86
Cape Fear	5	148	63.73	90.84	83.06
Cape Fear	6	175	62.21	82.05	84.16
Lee	1	80	50.63	86.89	85.89
Lee	2	80	41.80	71.18	71.21
Lee	3	257	58.82	83.05	83.31
Mayo	1	726	62.45	93.52	90.51
Robinson	1	179	61.18	93.37	88.38
Roxboro	1	374	79.40	77.59	81.69
Roxboro	2	671	73.67	97.00	90.78
Roxboro	3	698	62.76	82.52	79.82
Roxboro	4	711	71.40	87.72	86.19
Sutton	1	98	39.14	63.76	65.89
Sutton	2	107	44.65	71.48	65.45
Sutton	3	411	48.01	70.56	63.56
Weatherspoon	1	49	13.92	63.65	60.17
Weatherspoon	2	49	14.93	7.16	36.09
Weatherspoon	3	79	23.59	84.79	74.19
Fossil System Total		5,275	62.52	83.99	81.52
Brunswick	1	975	97.67	87.11	91.86
Brunswick	2	953	79.50	79.02	88.33
Harris	1	936	93.90	100.50	99.78
Robinson Nuclear	2	758	104.08	100.76	100.74
Nuclear System Total		3,622	93.18	91.30	94.83
Total System		8,897	74.79	86.97	86.94

Amended SC Fuel Rule
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of $\geq 92.5\%$ during the 12 month period under review. For the test period March 1, 2009 through February 28, 2010, actual period to date performance is summarized below:

Period to Date: March 1, 2009 to February 28, 2010

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period	A = 28,121,649 MWH
B. Total number of hours during SCPSC test period	B = 8,760 hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C = 3,468 MW for 2009 3,482 MW for 2010
D. Reasonable nuclear system reductions (see page 2)	D = 3,013,218 MWH
A. SC Fuel Case nuclear system capacity factor: $[(A + D) / (B + C)] * 100 = 102.4\%$	

NOTE:

If Line Item E $> 92.5\%$, presumption of utility's minimum cost of operation.

If Line Item E $< 92.5\%$, utility has burden of proof of reasonable operations.

Note: Robinson Unit 2 MDC value was increased by 14 MW, effective 1/1/10, primarily reflecting the impact of changes associated with calculation methods (NERC requires annual evaluation of environmental and operational parameters; former process used three to five-year average), environmental monitoring and compliance, and the impact of equipment degradation.

Amended SC Fuel Rule
Nuclear System Capacity Factor Calculation
Reasonable Nuclear System Reductions
Period to Date: March 1, 2009 to February 28, 2010

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC (March - December 2009)	938 MW	920 MW	900 MW	710 MW	3,468 MW
Unit MDC (January - February 2010)	938 MW	920 MW	900 MW	724 MW	3,482 MW
Reasonable refueling outage time (MWH)	46,768	1,315,891	495,270	0	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	300,340	507,172	120,247	81,561	
Reasonable coast down power reductions (MWH)	5,558	0	24,856	0	
Reasonable power ascension power reductions (MWH)	13,400	42,566	25,920	0	
Prudent NRC required testing outages (MWH)	16,967	16,474	228	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	0	0	0	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	383,033	1,882,103	666,521	81,561	
Total reasonable outage time exclusions [carry to Page 1, Line D]					3,013,218